

ABSTRACT

An ultrasonic etching apparatus for chemically-etching a workpiece is disclosed. The apparatus includes an outer tank at least partially filled with an aqueous solution, an inner tank at least partially disposed within the outer tank and  
5 in contact with aqueous solution, the inner tank at least partially filled with an etching solution, a lid engaged with the mouth of said inner tank; and an ultrasonic transducer coupled to the outer tank to impart ultrasonic energy to the etching solution in said inner tank. Also disclosed are methods of using the apparatus to etch workpieces.